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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/078,498 | 02/21/2002 | Tetsuroh Nakamura | 50023-167 | 5251 |

7590

10/09/2003

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Washington, DC 20005-3096

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| EXAMINER |
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HODGES, MATTHEW P

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2879

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/078,498

Applicant(s)

NAKAMURA ET AL.

Examiner

Matt P Hodges

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 03 June 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1,6-9,20,21 and 26-29 is/are allowed.
- 6) ☒ Claim(s) 2-5,10,11,13-19,22-25,30,31,33-37,39 and 40 is/are rejected.
- 7) ☒ Claim(s) 12,18,32 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Response to Amendment

The Amendment, filed on 06/03/2002, has been entered and acknowledged by the Examiner.

Claim Objections

Claims 3, 9, 23, 26, and 29 are objected to because of the following informalities:

Regarding claims 3 and 23 last line, the element "lead" lacks proper antecedent basis.

Regarding claims 6, 9, 26, and 29, the word "witch" appears to be a typographical error.

For the purposes of examination it is assumed the applicant intended to write "which".

Appropriate correction is required.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 10 and 30 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 15 of copending

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Application No. 10/108421. Although the conflicting claims are not identical, they are not patentably distinct from each other because although no joint portions are specified they are inherent in the combination of the plural light source pieces and thus are an obvious variation.

Claims 11 and 31 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 19 of copending Application No. 10/108421. Although the conflicting claims are not identical, they are not patentably distinct from each other because although no joint portions are specified they are inherent in the combination of the plural light source pieces and thus are an obvious variation.

Claims 13 and 33 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 20 of copending Application No. 10/108421. Although the conflicting claims are not identical, they are not patentably distinct from each other because although no joint portions are specified they are inherent in the combination of the plural light source pieces and thus are an obvious variation.

Claims 14 and 34 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 15 of copending Application No. 10/108421. Although the conflicting claims are not identical, they are not patentably distinct from each other because although no joint portions are specified they are inherent in the combination of the plural light source pieces and thus are an obvious variation further though not specified the light source pieces have a center section that makes the center emit light and at least one end section to make the ends emit light.

Claims 15 and 35 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 20 of copending

Art Unit: 2879

Application No. 10/108421. Although the conflicting claims are not identical, they are not patentably distinct from each other because although no joint portions are specified they are inherent in the combination of the plural light source pieces and thus are an obvious variation.

Claims 17 and 37 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 21 of copending Application No. 10/108421. Although the conflicting claims are not identical, they are not patentably distinct from each other because although no joint portions are specified they are inherent in the combination of the plural light source pieces and thus are an obvious variation further though not specified the light source pieces have a center section that makes the center emit light and at least one end section to make the ends emit light.

Claims 19 and 39 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 24 of copending Application No. 10/108421. Although the conflicting claims are not identical, they are not patentably distinct from each other because although no joint portions are specified they are inherent in the combination of the plural light source pieces and thus are an obvious variation further though not specified the light source pieces have a center section that makes the center emit light and at least one end section to make the ends emit light.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 40 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for joining two EL light source pieces for use in an image reading apparatus, does not reasonably provide enablement for the joining of any type of light source for use in an image reading apparatus. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims. In this case the broad spectrum of light sources requires greater disclosure as to how for instance fluorescent lamp pieces would be joined to provide the light source for a image reading apparatus.

Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 3 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Murakami (US 5,483,120).

Regarding claims 3 and 23, Murakami discloses (see figure 1b) a light source including a transparent substrate (1), a transparent electrode (2), an electroluminescent layer (3), and a

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metallic electrode layer (5). (Column 3 lines 19-27). Further the back electrode is divided into 2 or more parts and is electrically connected to a single power source. (Column 4 lines 9-14)

Examiner notes that the preamble of claims 20-39 stating "an image reading apparatus" has not been given patentable weight as no structural limitations are present in the body of the claim to further define an image reading apparatus over the light source of claims 1-20.

Additionally the term image reading apparatus could be broadly interpreted to include any light source which assists in the reading of an image.

Claims 4 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Pennaz et al (US 6,624,569).

Regarding claims 4 and 24, Pennaz discloses (see figures 1 and 2) a light source including a transparent substrate (14), a transparent electrode (18), an electroluminescent layer (16), a lead (30), and a metallic electrode layer (24). The lead is connected to the peripheral portion of the electrode layer through bus bar (20). (Column 4 lines 23-43).

Claims 4, 5, 10, 14, 16, 19, 24, 25, 30, 34, 36, and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Abe et al. (JP 05315073).

Regarding claims 4, 5, 24, and 25, Abe discloses a light source including a transparent substrate (1), a transparent electrode (6), an EL layer (4), a lead (9), and a metal electrode (2). The lead is connected to the peripheral portion of the electrode layer and is isolated from the EL layer by a dielectric layer (5).

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Regarding claims 10 and 30, Abe discloses the use of a plurality of light sources as seen in figure 8.

Regarding claims 14 and 34, Abe disclose portions of the light-emitting layer both in the center and at the ends. These portions emit light.

Regarding claims 16 and 36, Abe disclose the use of a voltage applied to the light-emitting layer including both in the center and at the ends.

Regarding claims 19, and 39, the light source is electroluminescent.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 13, 22, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abe et al. (JP 05315073).

Regarding claims 2 and 22, Abe discloses a light source including a transparent substrate (1), a transparent electrode (6), an EL layer (4), a lead (9), and a metal electrode (2). Abe does not appear to specify that the EL layer's thickness varies with distance from the contact point, however Abe does disclose the use of varying the thickness of the EL layer in order to maintain uniform brightness. Further it is known that the total resistivity of the transparent electrode increases with distance from the lead, thus the EL layer would be thinned as the distance from the lead increased.

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Regarding claims 13, 15, 33, and 35, Abe discloses the plurality of light sources as claimed (see rejection of claims 10 and 30 above), but does not appear to specify the use of a thinner thickness at the ends of the light source than at the center. However Abe does disclose the use of varying the thickness of the EL layer in order to maintain uniform brightness. Thus, it would have been obvious at the time the invention was made to a person having ordinary skills in the art to use of a thinner thickness at the ends of the light source than at the center in order to maintain uniform brightness.

Allowable Subject Matter

Claims 1, 6-9, 20, 21, and 26-29 allowed.

Claims 12, 18, 32, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 1 and 21, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 1 and 21, and specifically comprising the limitation of light source where the width depends on the distance from the contact point between the electrode and the lead.

Regarding claims 6 and 26, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 6 and 26, and specifically comprising the limitation of light source including red, green and blue colors where the width of

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each electroluminescence layer depends on the light emitting capability of the specific emitted color.

Regarding claims 7, 8, 27, and 28, claims 7, 8, 27, and 28 are allowable for the reasons given in claims 6 and 26 because of their dependency status from claims 6 and 26.

Regarding claims 9 and 29, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 9 and 29, and specifically comprising the limitation of light source including red, green and blue colors where the position of each electroluminescence layer depends on the light emitting capability of the specific emitted color and the necessary illuminance for reading an image.

Regarding claim 20, claim 20 is allowable for the reasons given in claims 6 and 9 because of its dependency status from claims 6 and 9.

Regarding claims 12 and 32, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 18 and 38, and specifically comprising the limitation of plurality of light sources where the end face of the lateral side of the light source is slanted in relation to the lateral direction of the light source.

Regarding claims 18 and 38, the references of the Prior Art of record fails to teach or suggest the combination of the limitations as set forth in claims 18 and 38, and specifically comprising the limitation of plurality of light sources where the end piece of the light source is L-shaped and is off the median line parallel with the longitudinal direction of the light source piece.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shibata et al. (US 6,617,785) discloses the joining of several EL panels.


Nishio et al. (US 6,624,570) discloses the joining of EL pieces.


Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matt P Hodges whose telephone number is (703) 305-4015. The examiner can normally be reached on 7:30 AM to 4:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on (703) 305-4794. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

mph 


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